AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-10 (cancelled).

11 (new). A lossless data compression system comprising:

an input for data to be compressed,

a dictionary comprising a content addressable memory and a coder for encoding the location of matching data in the dictionary and the type of a full or partial match,

a run length encoder connected to receive the output of the coder,

the run length encoder being arranged to count the number of times a match consecutively occurs at the same predetermined dictionary location.

12 (new). A system according to claim 11 in which the dictionary is arranged so that at each search step a search tuple is loaded into the same address of the dictionary.

13 (new). A system according to claim 12 in which the run length encoder register means is arranged to count the number of times the same search tuple is loaded into the same address of the dictionary.

14 (new). A system according to claim 12 in which a further address in the dictionary is reserved to indicate the number of times a search tuple is repeated.

15 (new). A system according to claim 13 in which a further address in the dictionary is reserved to indicate the number of times a search tuple is repeated.

16 (new). A system according to claim 11 in which the dictionary is arranged to hold data elements which are all of precisely equal length and each dictionary entry holds multiple data elements.

17 (new). The system according to claim 16 in which each dictionary entry holds up to 4 data elements.

18 (new). A system according to claim 11 in which consecutive matches are indicated by transmission of a dictionary address which is not yet utilised for storage of dictionary data.

19 (new). A lossless data decompression system for decompressing a compressed data signal, the decompression system comprising a dictionary and a decoder, and a run length decoder register connected to receive the output of decoder.

20 (new). A lossless data decompression system as claimed in claim 19, the system further comprising repetition means responsive to a component in a compressed data signal to cause data to be repeated at an output of the system.

21 (new). A lossless data decompression system as claimed in claim 20, the repetition means being adapted to cause a plurality of repetitions of decompressed data.

22 (new). A lossless method of compressing data comprising the steps of:

comparing a search tuple of variable length with a plurality of tuples of the same length stored in a dictionary;

indicating the location in the dictionary of a full or partial match or matches;

selecting a best match of any plurality of matches;

encoding the match location and the match type;

loading each search tuple in turn into the same address in the dictionary; and

counting the number of times identical tuples are matched consecutively into said address.